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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/553,129

12/12/2006

Young Soo Kim

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EXAMINER

CORMIER, DAVID G

ART UNIT

PAPER NUMBER

1711

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/553,129	<b>Applicant(s)</b> KIM, YOUNG SOO	
	<b>Examiner</b> DAVID CORMIER	<b>Art Unit</b> 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12, 15-21 and 29-32 is/are pending in the application.
- 4a) Of the above claim(s) 1-8 and 15-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-12 and 29-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments/Amendments***

1. This Office action is responsive to the amendment filed on February 19, 2010. Claims 1-12, 15-21, and 29-32 are pending. Claims 1-8, and 15-21 are withdrawn from further consideration. Claims 29-32 are new, and Claims 13, 14, 27, and 28 have been canceled. No new matter has been entered.
2. Claims 9-11 were rejected under 35 U.S.C. 102(a and e) as being anticipated by Kim et al. (US 2004/0187527). Claims 12-14 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Dober et al. (EP 1275767). Applicant's arguments have been fully considered but they are not persuasive.
3. Applicant argues that Kim is “silent regarding any disclosure, express or inherent, concerning ‘supplying steam into the tub or drum having the laundry thereto to sterilize or sanitize the laundry when the intermediate spinning is finished’ and before filling of water to rinse” (emphasis added; see Applicant’s Remarks, page 1, paragraph 5). The Examiner notes that the emphasized portion of the quote has not been claimed. What has been claimed is to “rinse at least once when washing water supplied to the tub or drum when supplying the steam to sterilize or sanitize the laundry is finished.” The claim language does not exclude having multiple rinsing steps wherein steam is also supplied (as taught by Kim). In other words, a first rinse with a first step of supplying steam can be performed, then a second rinse with a second step of supplying steam can be performed after the first step of supplying steam has finished.

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Applicant also discusses the benefits of Applicant's invention over the prior art, but as discussed above, the steps which produce those benefits have not been claimed.

4. New grounds of rejection are also made in response to Applicant's amendments.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

- a. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 31 and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 31 recites the phrase "wherein the rinsing is made by progressing the following steps in succession." It is unclear if the rinsing step should be interpreted as "comprising" those step, or "consisting of" those steps, or something else entirely. Because Claim 32 introduces additional steps to the rinsing, the phrase in Claim 31 will be interpreted as "comprising the following steps in succession."

***Claim Rejections - 35 USC § 102***

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. **Claims 9-11 are rejected under 35 U.S.C. 102(a and e) as being anticipated by Kim et al. (US 2004/0187527).**

10. Regarding Claim 9, Kim discloses a method for operating a laundry device comprising:

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- b. Supplying washing water to a tub or drum having laundry introduced thereto [0053];
- c. Rotating the drum for a preset time period during washing [0063];
- d. Draining residual washing water while performing intermediate spinning of the drum at a high speed for making an intermediate extraction of water when the washing is finished [0064];
- e. Performing a final spinning cycle when rinsing is finished [0065].

11. Kim further discloses that the rinsing and intermediate dewatering steps can be repeatedly carried out [0065] and that high-temperature, high-pressure steam may be sprayed into the tub or drum at various times (such as washing, rinsing, or during the water supply) for sterilizing the laundry [0066]. In the case of multiple intermediate rinsing and dewatering steps, a steam injection step during the multiple intermediate rinsing steps would read on the step of "supplying steam into the tub or drum having the laundry thereto to sterilize or sanitize the laundry when the intermediate spinning is finished," and a step of "rinsing at least once" would be performed after one of the intermediate steps of supplying steam during rinsing.

12. Regarding Claims 10 and 11, Kim discloses that the steam is supplied for sterilization [0066], thus it would be supplied long enough and at a high enough temperature to kill *various* microbes.

***Claim Rejections - 35 USC § 103***

13. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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14. **Claims 12, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US 2004/0187527) in view of Dober et al. (EP 1275767 A1).**

15. Regarding Claim 12, Kim is relied upon as above.

16. Kim does not expressly disclose a step of supplying steam to the tub or drum to refreshen laundry after the final spinning cycle is finished.

17. Dober discloses a method for a washing machine where laundry is washed [0011], spin extracted [0012], then the laundry is steamed to remove the creases resulting from the spin extraction [0015]-[0016], [0018]. The steaming step also results in sterilization of the laundry [0016]-[0017].

18. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kim, as taught by Dober, and to include a refreshing step subsequent to the final spinning cycle in order to yield the predictable benefits of removing creases and further sterilizing the laundry.

19. Regarding Claims 29 and 30, Kim is relied upon as above.

20. Kim does not expressly disclose that the temperature is higher than about 60 °C, or that the time period is a time period of 3-10 minutes.

21. The discussion of Dober is relied upon as above. Dober further discloses that the dewrinkling/sterilization step is done for 5-20 minutes [0018]. Dober also discloses that the fabrics should reach a temperature of at least 60 °C for efficient sterilization.

22. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify Kim, as taught by Dober, and to have the steam temperature at a temperature higher than 60 °C so that the temperature of the fabrics reach a temperature higher than 60 °C,

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producing the predictable result of efficiently sterilizing the laundry. And furthermore, because Dober discloses that the steaming step is done for 5-20 minutes, and the results of the modification would be predictable, namely, effective dewrinkling/sterilization of laundry, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the duration of the sterilization step within the claimed range.

**23. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US 2004/0187527) in view of Woelfel (US 1,711,162).**

24. Kim is relied upon as applied above.

25. Kim does not expressly disclose the rinsing is made by a first rinsing step for performing rinsing with cold washing water, a second rinsing step for performing rinsing with warm washing water after finish of the first rinsing step, and a third rinsing step for performing rinsing with cold washing water.

26. Woelfel discloses that it was previously known to perform a rinse wherein the rinse is done by successive rinses of warm and cold water (col. 3, lines 1-9).

27. Because it is known in the art to successively rinse with warm and cold water, and the results of the modification would be predictable, namely, an effective means of rinsing washing water from laundry, it would have been obvious to one of ordinary skill in the art at the time of the invention to have a rinse comprising alternating cold and warm water rinses. And because the order of the rinses can only start with either a cold rinse step or a warm rinse step, it would have been obvious to try starting with a cold step. MPEP 2143 - Obvious to Try.

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28. **Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US 2004/0187527), in view of Woelfel (US 1,711,162), and in further view of Goddard et al. (US 2004/0019977).**

29. Kim in view of Woelfel is relied upon as above.

30. Kim in view of Woelfel does not expressly disclose an intermediate step between the first and the second rinsing step, and between the second and the third rinsing step.

31. Goddard discloses a washing machine rinse cycle having three rinse steps, each followed by a spin and drain step (Fig. 3b, [0048]).

32. Because it is known in the art to spin extract laundry between multiple rinse cycles, and the results of the modification would be predictable, namely, an effective method of removing detergent from laundry, it would have been obvious to one of ordinary skill in the art at the time of the invention to have intermediate steps between the rinse steps, wherein the intermediate steps comprise spin extractions.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period



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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID CORMIER whose telephone number is (571) 270-7386. The examiner can normally be reached on Monday - Thursday 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DGC/  
David Cormier  
04/28/2010

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/Barbara L. Gilliam/

Supervisory Patent Examiner, Art Unit 1710